UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/443,684	11/18/1999	ROBERT E. PENTECOST	10990654-1	7581

22879	7590	05/06/2004	

HEWLETT PACKARD COMPANY
P O BOX 272400, 3404 E. HARMONY ROAD
INTELLECTUAL PROPERTY ADMINISTRATION
FORT COLLINS, CO 80527-2400

EXAMINER
EBRAHIMI DEHKORDY, SAEID

ART UNIT	PAPER NUMBER
2626	

DATE MAILED: 05/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

> A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
> THE MAILING DATE OF THIS COMMUNICATION.
> - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
>   after SIX (6) MONTHS from the mailing date of this communication.
> - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
> - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
> - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
>   Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
>   earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>17 March 2004</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-29</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-29</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

Response to Arguments

1.   Applicant's arguments, see page11 lines 9-19 and page 12 lines 4-17, filed 3/17/2004,

with respect to Final action have been fully considered and are persuasive. The rejection of final

action has been withdrawn.

2.   However, Applicant's arguments with respect to claim 1-29 have been considered but are

moot in view of the new ground(s) of rejection.

DETAILED ACTION

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

4.   Claims 1-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vidyanand

(U.S. patent 6,330,071) in view of Suzuki et al (U.S. patent 5,923,013)

Regarding claim 1,10,15 and 21 Vidyanand discloses: An apparatus for printing

pages of a print job, comprising: a page analyzer operative to identify static page

aspects and variable page aspects from page data within a print job (please note Fig.14

column item 1406 the detection mechanism which acts as the analyzer to receive the

print job containing the variable and master pages, column 6 lines 49-57).

a converting apparatus communicating with the page analyzer and operative to convert

the static page aspects into static page layout objects and the variable page aspects

into variable print data (please note Fig.14 item 1407 the disassemble print job item

which acts as the converting apparatus to get the print job form the detection

mechanism and convert it to the proper combination, column 6 lines 49-57). However

Vidyanand does not disclose: an identifying apparatus communicating with the

converting apparatus and operative to identify the static page layout objects in the

manner allowing for an optimized form to be created, and to allow for appropriate

merging with the variable print data; an optimizer apparatus communicating with the

identifying apparatus and operative to convert the static page layout objects to an

optimized form, wherein optimization level to create the optimized form is based on

intended usage of the static page layout objects by a user;

a storage apparatus communicating with the optimizer apparatus and operative to store

at least one instantiation of the static page layout objects in the optimized form;

and a merging apparatus communicating with the storing apparatus and operative to

merge the static page layout objects with the variable print data to create merged print

data. On the other hand Suzuki et al disclose: an identifying apparatus communicating

with the converting apparatus and operative to identify the static page layout objects in

the manner allowing for an optimized form to be created (please note Fig.1 item 12 the

internal storage where the variable data and static or master data are laid out, column 5

lines 1-6) and to allow for appropriate merging with the variable print data (please note

column 5 lines 1-6 where the variable data is merged with the master or static data) an

optimizer apparatus communicating with the identifying apparatus and operative to

convert the static page layout objects to an optimized form, wherein optimization level to

create the optimized form is based on intended usage of the static page layout objects

by a user (please note column 7 lines 44-66 where the user is being able to optimized of

modify the job description file of revision where in the optimization and modifications are

being produced by the user by in replacesSet field 64) a storage apparatus

communicating with the optimizer apparatus and operative to store at least one

instantiation of the static page layout objects in the optimized form (please note Fig.1

items 12 the internal storage and item 22 the editing unit which acts as the optimizer in

this case to modify or in fact optimize the print job by using the specific job description

file with the specific page data to get the most optimized form, column 5 lines 26-32)

and a merging apparatus communicating with the storing apparatus and operative to

merge the static page layout objects with the variable print data to create merged print

data (please note Fig.1 item 12 the internal storage which also acts as the merging

apparatus to combine the static or master page with the variable page data, please note

column 5 lines 1-25).

Therefore it would have been obvious to a person of ordinary skill in art at the time

of the invention to modify 1407 of Vidyanand's invention with internal storage 12 of

Suzuki unit and detection mechanism 1406 with the editing unit 22 of Suzuki to

optimized the form based on user' need according to the teaching of Suzuki et al, where

Suzuki et al in the same field of endeavor teaches the way the static or master job could

be combine as needed for the purpose of having the most optimized form possible for

the user.

Regarding claim 2 Vidyanand discloses: The system of claim 1 wherein the page analyzer resides within a printer (please note Fig.14 item 1406, column 6 lines 49-51)

Regarding claim 3 Vidyanand discloses: The apparatus of claim 1 wherein the page analyzer resides within a printer server (please note column 6 lines 41-48).

Regarding claim 4 Vidyanand discloses: The apparatus of claim 1 wherein the optimizer apparatus removes the static page layout objects that are not in an optimized form during the converting activity in order to recover memory (please note Fig.3 column 4 lines 20-32 where the disk space occupied by the static or mast data images 302 is typically reclaimed).

Regarding claim 5 and 16 The apparatus of claim 1 wherein the merging apparatus includes a static page buffer and a variable page buffer, the static page buffer capable of receiving raster print data for the optimized form of the static page layout objects, and the variable page buffer operative to receive raster print data for the variable print data (please note Fig.1 items 12 and 22 where the page data and job description data are held and get optimized through the job editing unit, column 5 lines 26-32).

Regarding claim 6 Suzuki et al disclose: The apparatus of claim 5 wherein the merging apparatus is further operative to convert the optimized form of the static page layout objects stored in the storage apparatus to a raster form, and to convert the variable print data to a raster form the merging apparatus further operative to initialize the static page buffer with the optimized form of the static page layout objects in the raster form and thereafter to merge the optimized form of

the static page layout objects with the variable print data by transmitting the

Variable print data in the raster form to the variable page buffer (please note Fig.1 item

12 where the static or master and variable jobs are merged to create a new optimized

job, column 5 lines 1-25).

Regarding claim 7 Vidyanand discloses: The apparatus of claim 1 wherein the

static page aspects comprise static image elements (please note column 4 lines 29-30).

Regarding claim 8 Vidyanand discloses: The apparatus of claim 1 wherein the

static page layout objects comprise forms (please note column 4 lines 7-19).

Regarding claim 9 Vidyanand discloses: The apparatus of claim 8 wherein a

processed form comprises at least one layer (please note column 5 lines 50-59).

Regarding claim 11 Vidyanand discloses: The page printing apparatus of claim

10 wherein the static layer is formed from static page layout objects (please note

column 5 lines 17-20).

Regarding claim 12 Vidyanand discloses: The page printing apparatus of claim

10 wherein the variable layer is formed from variable print data (please note column 5

lines 8-10).

Regarding claim 13 Vidyanand discloses: The page printing apparatus of claim

10 where each of the static layer and the variable layer comprise a process collection of

page layout objects including one or more of images, graphics, and text represented in

a page description language (please note column 6 lines 34-39).

Regarding claim14 Vidyanand discloses: The page printing apparatus of claim 10 wherein the storage apparatus is configured to store the static layer for re-use by caching the static layer within the storage apparatus (please note column 5 lines 8-17).

Regarding claim 17 Vidyanand discloses: The method of claim 15 further including removing the static page layout objects present in non-optimized form following converting the at least one instantiation of the static page aspects into the static page layout objects (please note column 6 lines 45-57).

Regarding claim 18 Vidyanand discloses: The method of claim 15 wherein the static page layout objects form a static layer and wherein the variable print data forms a variable layer (please note column 6 lines 17-24).

Regarding claim 19 Vidyanand discloses: The method of claim 18 wherein the step of storing at least one instantiation of the static page layout objects comprises layer caching the static layer within memory for later re-use (please note column 5 lines 8-16).

Regarding claim 20 Vidyanand discloses: The method of claim 15 wherein a plurality of the static page layout objects together provide a form that includes one or more of images graphics and text represented in a page description language (please note column 6 lines 16-24).

Regarding claim 22 Suzuki et al disclose: The apparatus of claim 9 wherein the preprocessed form comprises one or more layers and management of the one or more layers is performed by calling a file system of a printer in order to manage resources of the printer (please note column 5 lines 7-24).

Regarding claim 23 Suzuki et al disclose: The apparatus of claim 22 wherein caching of the one or more layers is performed by establishing a link between individual ones of the layers and the static page layout objects (please note column 8 lines 11-28).

Regarding claim 24 Suzuki et al disclose: The apparatus of claim 23 wherein individual static page layout objects include a field indicative of intended usage of the individual static page layout objects by a user (please note column 7 lines 39-43).

Regarding claim 25 Suzuki et al disclose: The apparatus of claim 24 wherein the field is used by a printer to optimize storage of the static page layout objects (please note column 5 lines 1-5).

Regarding claim 26 Suzuki et al disclose: The apparatus of claim 1 wherein the optimized form is preprocessed to create one or more layers, wherein individual ores of the layers are used to create a page configured for printing by a printer (please note column 6 lines 56-64).

Regarding claim 27 Suzuki et al disclose: The apparatus of claim 26 wherein the individual ores of the layers are independent of each other and are managed by the printer (please note column 6 lines 40-44).

Regarding claim 28 Suzuki et al disclose: The apparatus of claim 26 wherein upon deletion of the optimized form, a correspondingly created cached layer is also deleted (please note column 17 lines 45-52).

Regarding claim 29 Suzuki et al disclose: The apparatus of claim 26 wherein upon renaming of the optimized form, links to individual ones of the layers related to the optimized form are updated (please note column 18 lines 1-13).

Contact Information

> Any inquiry concerning this communication or earlier communications from the
> examiner should be directed to *Saeid Ebrahimi-Dehkordy* whose telephone number
> is (703) 306-3487.

The examiner can normally be reached on Monday through Friday from 8:00 a.m. to
5:30 p.m. If attempts to reach the examiner by telephone are unsuccessful, the
examiner's supervisor, Kimberly Williams, can be reached at (703) 305-4863.

Any response to this action should be mailed to:

Assistant Commissioner for Patents
Washington, D.C. 20231
Or faxed to:

(703) 872-9306, or (703) 308-9052 (for *formal* communications; please
mark
"EXPEDITED PROCEDURE")

Or:

(703) 306-5406 (for *informal* or *draft* communications, please label
"PROPOSED" or "DRAFT")
Hand delivered responses should be brought to Crystal Park II, 2121 Crystal
Drive, Arlington, VA., Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application should be
directed to the Group Receptionist whose telephone number is (703) 305-4750.

Saeid Ebrahimi-Dehkordy
Patent Examiner
Group Art Unit 2626
April 22 2004

GRANT II
Y EXAMINER